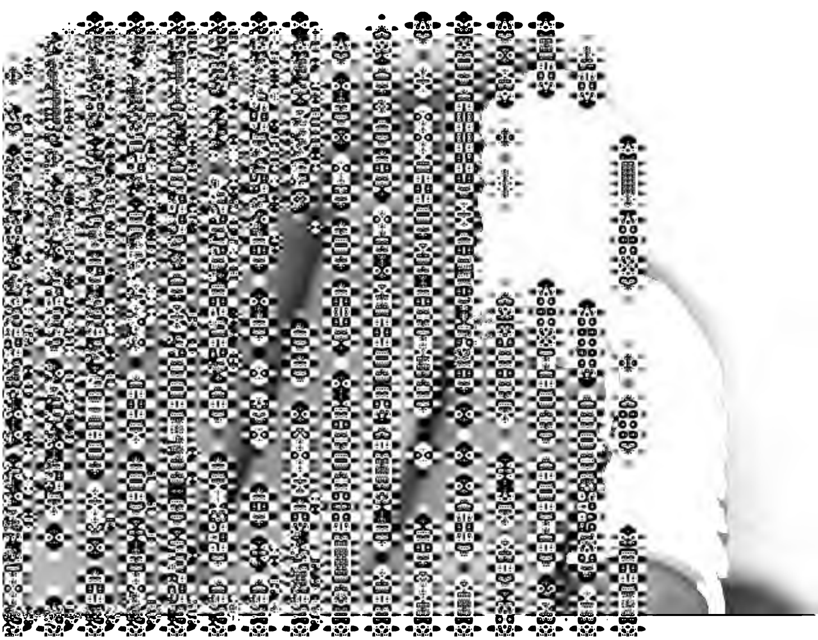




1866-7.] CITY DOCUMENT. [No. 42.

REPORT

UPON THE

PREVENTION OF DISEASE

IN THE

CITY OF PROVIDENCE:

IN

1866 AND 1867.

PRESENTED TO THE BOARD OF ALDERMEN MAY 2, 1867,

BY

EDWIN M. SNOW, M. D.,

SUPERINTENDENT OF HEALTH.



PROVIDENCE:
PROVIDENCE PRESS COMPANY, CITY PRINTERS.
1867.

[No. 42.

DISEASE

NCE:

MAY 2, 1867,

D.,

PRINTERS.

Prevention of Disease in Providence,

1866 AND 1867.

To the Honorable the Mayor and Board of Aldermen:

GENTLEMEN—Asiatic Cholera is again exciting attention, to some extent, in this country, and in some of our cities extensive preparations are making, upon the professedly positive belief that the disease is certain to prevail here again during the coming summer.

My own opinion, founded upon observations of the past history of the disease, is, that there are very slight reasons for believing that it will prevail here epidemically this year, and that if past experience were a sure guide in this matter, I should not expect it. We may have cases of the disease, and some places may suffer from it severely, as last year; but the evidences of a general epidemic seem to me to be wanting. It is however a strange disease, and though undoubtedly governed by definite laws, our knowledge of these laws is not yet sufficient to enable us to speak positively upon the subject.

It is fortunate, however, that our ignorance of the laws which govern the progress of Asiatic cholera as an epidemic, can work no disadvantage in regard to the adoption of measures for the local prevention of the disease.

We do not know the nature and laws of the epidemic cause of cholera, by which the disease is brought to this continent, and if we did know it, the knowledge would probably be of little utility in preventing the disease; but

We do know positively the local causes which tend to propagate the disease when it is here:

We do know positively that these local causes can, to a great extent, be removed:

We do know positively that if they are removed the epidemic cause of the disease will be comparatively powerless for evil; and

We do know positively that if these local causes are removed, and the epidemic cause of cholera fails to visit us, our labor is not lost.

We do know positively, though the truth is not so generally appreciated, that the same local causes which assist in the production of Asiatic cholera when the epidemic cause of that disease is present, are every year producing diseases which are infinitely more injurious in their effects upon the community than cholera itself.

During the year 1866, cholera infantum, cholera morbus, diarrhœa, and dysentery caused 136 deaths in Providence; Asiatic cholera only 14. During eleven years, 1856 to 1866 inclusive, these four diseases caused 1,356 deaths in Providence; Asiatic cholera only 14.

But it is not necessary, certainly not in Providence, to enter into any argument to show the importance of sanitary measures for the prevention of disease; nor is it necessary to make use of the bugbear Asiatic cholera, at the present time, to obtain the sanction of the people, or of your honorable board, for any measures that may be necessary to prevent any disease during the coming summer.

OBJECT OF THIS REPORT.

The object of this report will be to make a brief statement of *the measures that were taken to prevent disease in Providence, during the spring and summer of* 1866; to show *some of the results of these measures;* to point out *some of the defects in the plan adopted in* 1866; and to indicate *what is proposed to be done during the present season.*

SANITARY MEASURES, 1866.

It will be recollected that the prevalence of Asiatic cholera in some portions of Europe in 1865, and the arrival of a few vessels at New York with the disease on board, during the fall of that year, created a general belief that the disease would prevail in this country in the summer of 1866, as it did in 1832, 1849 and 1854.

The continual discussion of the subject among the people and in the newspapers, soon transformed this belief into a partial panic, and the public began to call for preventive measures many months before there was the slightest possible danger from the disease in this country.

In order to allay this unnecessary alarm among our own people, I presented reports to your Board in November and December, 1865, stating what I believed and still believe, to be the true theory in relation to the causes and mode of propagation of cholera, and pointing out definitely when, how, and what I should propose to do to prevent it in Providence.

I think the reports alluded to had some effect to allay the alarm among the people of this city, and the whole matter was left by your Board, under my direction.

In accordance with the plan I had proposed, the necessary blanks were prepared, during the winter, and the out-door work was commenced on Monday, April 16, 1866.

Six men were detailed by the Mayor, from the police force, to act as inspectors. The city was divided into districts, and each district was finished before another was commenced.

In certain portions of the city where the character of the houses and of the population, and the experience of former visits of cholera, indicated that there was the greatest danger, the inspection was more thorough than in more favorable localities. In some streets and some sections, every house and yard, every privy and cesspool was thoroughly examined and reported in detail.

The inspectors were furnished with blanks, a copy of which is given at the close of this report. In the worst localities the

condition of every house, from the cellar to the attic, and of every yard, including the privies and cesspools, was minutely described in these reports. In other localities, only special nuisances were reported.

This work was continued with the full number of inspectors for some weeks, until every portion of the city, where any necessity for the work existed, was thoroughly examined. Afterwards a less number was employed, and one inspector was kept at work during most of the summer, in examining and reporting houses and premises of which complaints had been made, and in examining to see if the cleansing which had been ordered had been attended to in compliance with the orders.

As the reports of the inspectors were received at my office from day to day, each one was carefully examined, and the necessary orders were prepared for the action of the Board of Aldermen, or of the City Marshal, in accordance with the various acts of the General Assembly, and ordinances of the city. The nuisances reported, and the orders prepared in relation to them, were divided into three classes:

First, The order for general cleaning. This included removing filth from yards, removing filth from cellars, whitewashing cellars and rooms, removing the contents of privy vaults, cesspools, &c., &c.

This order, a blank copy of which was given in my report to your Board in November, 1865, required the action of the Board of Aldermen in each case. It was founded upon the third and fourth sections of the act of the General Assembly, passed March 5, 1858; and each order required an exact written description of the work of cleaning ordered to be done.

Second, Orders in relation to houses not provided with suitable privy vaults and sink drains. This order also required the action of the Board of Aldermen.

Third, Orders in relation to tenements unfit for habitation, also requiring the action of the Board of Aldermen.

In addition to these different classes of orders, the number and particulars of which will be given presently, a very large number of nuisances of minor importance were reported directly

from my office to the City Marshal for his action under the ordinances of the city. Of these I have kept no record.

It will be seen that the preparation of these orders for the action of the Board of Aldermen required an immense amount of writing in my office, and also devolved a great amount of extra labor upon the City Clerk.

After the orders were passed by the Board of Aldermen, and signed by the City Clerk, they were given to the City Marshal, in whose office copies of them were made, after which they were served upon the parties, and the legal returns were made upon the originals, which were returned to me.

The number of orders passed by the Board of Aldermen, during the season of 1866, was as follows:

First class, orders for general cleaning	1,217
Second class, houses without suitable privy vaults or sink drains	740
Third class, tenements unfit for habitation	12
Total	1,969

As already stated, each of the orders of the first and second classes contained an order for the removal of more than one, and often of a large number of separate nuisances. A more particular analysis of the orders passed, as recorded in my office, shows that they contained complaints of nuisances, and orders for their removal, as follows:

FIRST CLASS.

Removal of filth from cellars	517
Removal of filth from yards	726
Whitewashing cellars	676
Whitewashing rooms and passages	549
Removal of contents of privy vaults	662
Removal of contents of cess pools	326

SECOND CLASS.

Houses with no suitable sink drains	682
Houses with no suitable privy vaults	207

THIRD CLASS.

Tenements unfit for habitation	12
Whole number of nuisances complained of	4,357

The greater portion of these complaints was made during the month and a half from the sixteenth of April to the first of June, 1866.

The number given above is in addition to those already mentioned, which were reported from my office and complained of by the City Marshal or the Chief of Police, under the city ordinances.

Such is a general statement of the complaints made in relation to nuisances. This statement does not include all the work done in relation to sanitary matters. Numerous complaints were made, and the necessary action was taken in relation to them, which are not named in the above classification. The swine were very generally removed from the city ; slaughter houses received considerable attention, which I regret to say has not yet resulted in effective action ; lard-trying, and other offensive establishments, were attended to ; the public sewers were complained of, and partial attempts were made to remedy the serious nuisance constantly arising from them ; the usual visitation of vessels at quarantine was made, and an examination was constantly kept up through the season, of all houses and localities where any diseases of an epidemic, contagious, or infectious character appeared.

RESULTS OF SANITARY MEASURES, 1866.

It is not probable that every nuisance complained of was removed strictly in accordance with the orders issued ; but there was a very general compliance with them, and in only a few cases was it necessary to take further action.

The general opinion among the people was, that the city was in a better condition, in regard to sanitary matters, than ever before, and this opinion was undoubtedly correct.

As to the actual results of these measures, in the prevention of disease, it is difficult to make any positive statement in figures, and it is dangerous ground to claim positively, that any definite number of cases of disease, or of deaths, was prevented by them.

It is sufficient to say that the universal expectation was, that the summer of 1866 would be unusually sickly in the city ; but it was, in fact, unusually healthy ; it was generally expected

that Asiatic cholera would prevail extensively; but in fact, there was scarcely any of the disease here; there was a great amount of alarm at the approach of warm weather, which the result proved to be unnecessary.

Perhaps a comparison of the mortality in 1866 with that in 1865, from certain diseases, may be of interest in this connection. The effect of ordinary sanitary measures in preventing disease, is felt more particularly with reference to the class of diseases called *zymotic*. This class includes all diseases of an infectious, contagious, epidemic, and endemic character, many of which seem to be caused directly by impure air. In fact, sanitary measures which tend to remove the causes of impure air, are much more important with reference to the prevention of fevers and some other diseases, than to the prevention of Asiatic cholera. The following shows the number of deaths in the City of Providence, in 1866 and in 1865, from all zymotic diseases:

DEATHS IN PROVIDENCE.

	1866.	1865.
Whole number of deaths	1,086	1,211
Zymotic Diseases.		
Cancrum Oris	2	0
Cholera, Asiatic	14	0
Cholera Infantum	47	50
Cholera Morbus	17	7
Croup	23	29
Diarrhœa	28	34
Diphtheria	11	16
Dysentery	44	62
Erysipelas	4	8
Fever, Typhus and Typhoid	46	82
Fever, Puerperal	6	5
Hooping Cough	8	31
Measles	9	7
Pustule Malignant	1	0
Scarlatina	3	108
Skin, diseases of	0	1
Small Pox	0	11
Syphilis	4	2
Thrush	2	2
Total Zymotic Diseases	269	455

The number of deaths from summer complaints of all kinds, excluding Asiatic cholera, was 136 in 1866, and 153 in 1865.

The whole number of deaths in Providence, was 175 less in 1866 than in 1865; the number from zymotic diseases was 186 less, showing that the whole decrease in mortality was in precisely those diseases that are most affected by sanitary measures.

It should also be stated that from the beginning and throughout the season, particular attention was given to those localities where the character of the houses and of the population, usually produces the most sickness; and especially to those localities where Asiatic cholera had been most prevalent in former years.

The result was most astonishing. Every one of those localities was remarkably free from disease of every kind through the summer, and *not a single case of cholera occurred in any one of the localities where we had most reason to expect it.*

It is safe to say that the sanitary measures of the year 1866, had some effect in producing this great decrease in the mortality from zymotic diseases, and that undoubtedly, much sickness was prevented and some lives were saved by them.

But I do not claim, and do not believe that the extremely small amount of Asiatic cholera we had in 1866, in this, and in many other cities, was wholly owing to the sanitary measures that were put in force.

On account of the weather, or for some other unknown reason, the epidemic cause of cholera, which was undoubtedly here, did not, in this part of the country, exhibit the virulence in 1866, that it showed in 1849 and in 1854. It acted from the beginning "like a worn out epidemic."

But in all our cities to some extent, and in our larger cities to a much greater extent than in Providence, there are specific local causes of Asiatic cholera and of other diseases, arising from personal filth, intemperance, the construction of dwellings, crowding of population, &c., which it is impossible for sanitary measures, under existing circumstances, wholly to remove.

Whenever, then, the epidemic cause of cholera shall appear in our Eastern cities, with the same virulence that it did in 1849, and in 1854, we shall have far more cases of the disease than

we did in 1866, notwithstanding every effort that may be made to prevent it, by Boards of Health, with the powers they possess at the present time.

While, then, I would claim that sanitary measures, in Providence, in 1866, prevented some cases of cholera, and many more cases of other diseases, and that they saved some lives, I would not claim what another year, with the same measures in operation, may prove to be false, that sanitary measures were the chief and only cause of the extremely limited amount of Asiatic cholera that we had in that year.

Boards of Health are *not omnipotent*, and there are still some causes of disease with the laws of which we are not perfectly acquainted, and over which we have not yet obtained perfect control. Though we may do much for the prevention of disease, we should never forget that there is a Higher Power upon whose Will the success of our efforts must depend.

DEFECTS IN THE PLAN ADOPTED IN 1866.

The evils which were found in the sanitary measures adopted in 1866, were not so much in the plan itself as in the manner in which it was carried out; they arose not so much from deficiencies in doing the work, as from excess; they did not go in a wrong direction, but went farther than was necessary in the right direction.

The plan adopted was to have every house thoroughly examined and fully reported, and then to have an order passed, in every case, by the Board of Aldermen. Each order was a formidable document, and required considerable writing. A complete copy of each order was necessary to serve upon the parties to whom they were directed.

These orders were passed by hundreds, and after they could be signed by the City Clerk, were taken to the office of the City Marshal where copies were made and they were served upon the parties. The signing, copying and service of the large number of orders required time, and, in many cases, days and weeks passed before the parties received the orders. Besides this, in the press of business in the office of the City Marshal,

in some cases, two or three copies were made of the same order. In the mean time the people were fully awake to the importance of removing nuisances, and probably two-thirds of them commenced the work as soon as they found the officers were engaged in the examination.

The result was that large numbers of our citizens received a formidable order, and sometimes two or three copies of the same, served with all the formality of the law, to do certain things one, two, or three weeks after the work had been faithfully done. This was somewhat provoking.

The work of cleansing was done, and generally it was done thoroughly, as the results showed: but I am satisfied from the experience of past years, confirmed by that of the last year, that in Providence, at least, all necessary sanitary measures can be efficiently carried out without so much legal formality. I think that in three-fourths of the cases in which orders were passed by the Board of Aldermen, in 1866, a simple notice or request from my office would have accomplished the same result, and much more pleasantly to the people.

SANITARY MEASURES PROPOSED IN 1867.

The experience and knowledge acquired in 1866, in relation to the sanitary condition of localities and of houses in the city, were extremely valuable. It would be almost possible, from the records in my office, to make all the orders necessary for a thorough cleansing of the city, the present season. Without attempting this, however, I propose to make use of this knowledge as a guide, and to do the work as thoroughly as last year, with a less number of inspectors.

I propose to have every dangerous locality and house thoroughly examined and fully reported. I also propose to invite all persons to furnish information in relation to nuisances, all of which will be examined.

As the reports of the inspectors are received, I propose in the majority of cases to send notices from my office, to the owners of the estates reported, stating what is necessary to be done within a certain time. In cases where the nuisances are of a

serious character, or where I know the parties to be dilatory or inclined to avoid the necessary work, I propose to fill out orders for the action of the Board of Aldermen, as last year.

I also propose to have all copies of the orders made in my office, and served promptly.

With the usual examination, in all cases, to see if the work is done, I am confident that everything possible to prevent disease can be accomplished as thoroughly as last year, and with much less expense and with less cause for complaint among the people.

Respectfully,

EDWIN M. SNOW, M. D.

Superintendent of Health.

PROVIDENCE, May 1, 1867.

No.......

CITY OF PROVIDENCE.

SANITARY INSPECTION, 1866.

1. Owner or owners of the estate.
2. Location, street and number.
3. Names of heads of families living in the house.
4. Cellars.
5. Rooms and passages.
6. Sinks and sink-spouts.
7. Sink-drains and cess-pools.
8. Privies and privy-vaults.
9. Heaps of filth and condition of yards.
10. Hogs, or other animals, and fowls: Number? Where kept?
11. Is the house over-crowded? If so, give size of house. by feet. No. of stories occupied? No. of rooms? No. of families? No. of persons?
12. Any public nuisance near, and what?
13. Any sickness now in the house? No. of persons sick? What disease?
14. Any sickness during one year past? No. of persons? What disease?
15. Any deaths during one year past? What disease?
16. Is basement occupied for sleeping rooms? How many persons? Describe basement.
17. Kind and quality of the water used for cooking and drinking?
18. What obstructions to free circulation of air in house and yard?
19. General remarks.

The above is a correct description, as examined by me this.......... ...*day of*.............. 1866.

........................, INSPECTOR.

☞ REFER TO DIRECTIONS OFTEN. ☜

DIRECTIONS.

The figures below refer to the corresponding numbers on the other side:

1 and 2. Be sure and get the exact and full name of the owner or owners of the estate. Give the street and number, and describe the location so that it cannot be mistaken.

3. Give the names of the heads of families, only.

4. Examine cellars VERY CAREFULLY, and describe their condition particularly with regard to dampness, amount and kind of filth, ventilation, &c.

5. Are the walls of rooms and passages filthy and black; is the paper or plastering filthy and broken, so as to require repairing and whitewashing?

6. Is there any offensive smell from the sinks? Are the pipes or spouts water tight? Are there any traps to prevent foul air from coming into the room? Are the spouts broken, leaky, and filthy?

7. Are the sink drains clogged or uncovered? Are the cess-pools tightly covered and clean? Do the cesspools leak into the cellar or into the well?

8. Privies and vaults: Describe their condition particularly. Are they full or running over? Are they filthy? Is the vault tightly covered? Do they smell badly? Do the vaults need emptying?

9. Heaps of filth. Describe particularly the kind and amount of all heaps of filth about the premises, and the general condition of the yards.

10. Search carefully for hogs from attics to cellars, and elsewhere.

12. Public nuisances: As sewers, stables, offensive manufactories, &c.

13, 14, 15. Enquire particularly.

16. Report particularly any basement occupied as a tenement, and its character.

17. State whether water is from a well; whether it is called good or bad; whether any filth probably drains into the well, &c.

18. Are there any fences, or buildings, or trees which seriously obstruct the ventilation?

19. Give any other information you may think proper, or any hints about the estate, its general character, healthfulness, &c., &c.

☞ Give all descriptions in as few words as possible; but be sure and make them clear and definite.

